



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,753	03/01/2002	Ravi Kumar	ARVI-001	8757

7590 08/03/2006

DAVID P GORDON  
GORDON AND JACOBSON P.C.  
65 WOODS END ROAD  
STAMFORD, CT 06905

EXAMINER

HO, UYEN T

ART UNIT PAPER NUMBER

3731

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/086,753	Applicant(s) KUMAR, RAVI	
	Examiner (Jackie) Tan-Uyen T. Ho	Art Unit 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-8, 10-12, 15-18 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6-8, 10-12, 15-18 and 21-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 4/14/06 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5, 6-8, 10-12, 15-18 and 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdy (5,527,338) in view of Mubin-Uddin (3,540,431). Purdy discloses occlusion devices (figs. 7-10) comprising a plug having a tapered out surface, a larger diameter section, an interior chamber with rear opening, a plurality of spokes and an attachment means and said plug being sufficiently rigid in order to resist compressive forces applied thereto by the inner wall of the blood vessel such that the plug is gripped by compressive forces exerted by the elastic nature of the inner wall of the blood vessel (fig. 11), the plug inherently comprising an inner corrugated surface disposed within said interior chamber due to the plurality of spokes extending from the interior chamber. Purdy fails to disclose:

- an insertion device having interface means that cooperates with the attachment means of the plug to attached the plug to the insertion device
- the plug is made of silicon

Art Unit: 3731

- a spring and a lever to compress and decompress the spring to propel the needle outwards
- the outer wall diameter as claimed

Regarding to the insertion device and attachment means, Mebin-Uddin disclose an insertion device and attachment means as claimed for inserting a blood vessel filter plug that has similar structure of the blood vessel occlusion plug of Mebin-Uddin into a blood vessel. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an insertion device and attachment means in view of Mebin-Uddin into Purdy's occlusion apparatus in order to deliver the Purdy's occlusion device into a treated site of a blood vessel.

Regarding to the plug being made of silicon, Purdy discloses the plug being made from suitable material which can block the flow of fluid (col. 7, lines 50-67) and with a plurality of spokes or skeleton being made from metal (col. col. 9, lines 22-40). Purdy also discloses silicone polymer is the material that produce thrombosis particle in order to help occluding the fluid flow (col. 6, lines 28-32). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the plug fabric from silicon polymer material in order to enhance the occlusion.

Regarding to a spring and lever to compress and decompress the spring to propel the needle outwards, although the combined teaching of Purdy in view of Mebin-Uddin does not disclose the spring and lever as claimed, it is well known in the surgical art to provide a handle with spring and lever to compress and decompress the spring in order to propel the needle outwards. Therefore, it would have been obvious to one

Art Unit: 3731

having ordinary skill in the art at the time the invention was made to employ a handle comprising a spring and lever as claimed into the apparatus of Purdy in view of Mebin-Uddin in order to enhance propelling the needle (42) outwards so that to inject the plug to a target site.


Regarding to the outer wall diameter of the plug, the diameter as claimed is within the workable range, therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the plug of Purdy in view of Mebin-Uddin at the diameter as claimed in order to accommodate with blood vessel lumen having inner diameter in the range of 1mm-4mm.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Jackie) Tan-Uyen T. Ho whose telephone number is 571-272-4696. The examiner can normally be reached on MULTIFLEX Mon. to Sat..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ANHTUAN NGUYEN can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3731

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
(Jackie) Tan-Uyen T. Ho  
Primary Examiner  
Art Unit 3731

July 27, 2006